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**THE ROLE OF BRAND IMAGE ON BRAND TRUST AND LOYALTY FOR PURIFIED
 DRINKING BOTTLED WATER BRANDS IN TACHILEIK**

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ABSTRACT

Bottled water consumption has been on the rise globally but the brand image of bottled water remains unstudied. Motivated by the significant value of brand image as a source of brand equity, particularly from customer-based aspect, this study puts an emphasis on brand image in examining its role on brand trust and brand loyalty. The contribution lies not only in revealing the image role in bottled water, but also the cognitive, affective and sensory domains of image perceptions. In other words, cognitive image, affective image, and sensory image are studied. While cognitive image is rational in nature of the perceptual process and has closer relationship with the tangible aspects of encounters and experiences with the brand, the affective or emotional image is more related to feelings that arise as a result of, for instances, corporate social responsibility (CSR) and customer services. Sensory aspect of brand image is vastly neglected in the extant literature. These three dimensions of brand image form the customers' mental constructions and gives rise to meaningful perceptions to influence brand trust and brand loyalty. The findings of this study can provide the brand marketers with a strategic guide to improve the brand perceptions of consumers and thus induce brand loyalty. Besides, on the theoretical domain, this study provides an imagery insight in more balanced manner – cognitively, affectively, and sensory wise. The main statistical analysis tools to be used are factor analysis, reliability analysis, t-test, ANOVA, multiple regression and structural equation modeling (SEM) analyses, including mediating impact analysis. Data would be collected from the consumers of purified bottled water in Tachileik, Myanmar.

Keywords: Bottled water, brand image, brand trust, brand loyalty.

1. INTRODUCTION

Due to escalating awareness in healthiness, there are many companies involving in the purification, bottling, marketing and distributions of bottled waters for business and personal purposes. The consumers (end users) of bottled water have different types of consumption style including institutional and retail customers. In 2017, NESTLE water was the largest leading brand in the bottled water market (ReportLinker, 2016), projecting themselves in the premium quality segment, which highlights the significant value of brand image in the markets. The consumption of bottled water is increasing, on average, about 10% on yearly basis worldwide, with the fastest growth being seen in the developing countries such as Asia and South America (The Statistic Portal, 2017). The global consumption of bottled water reached 288 billion liters in 2012 and 391 billion liters in 2017 (The Statistic Portal, 2017).

As a part of the Asia Pacific regions, Myanmar is considered as in the process of developing its competitiveness both in industry and markets. In this regard, very little information is available regarding the water quality of nation. The growing demand for bottled water in Myanmar has risen to a number of unlicensed operators that produce bottled water that are of unqualified standards. This research thus attempts to capture the current state of perceptions of the quality and other cognition-induced, affection-induced and sensory-caused images of the different bottled water brands in Tachileik, Myanmar. The city, Tachileik, is located next to Thailand's northern border. The different consumer perceptions and attitudes of the different brands are integrated for studying the roles the cognitive, affective and sensory images played in the creation of brand trust and loyalty.



At the time of this study, there are many competitors in the bottled water business in TACHILEIK, characterized by more than 50 brands in the market. Although not many brands are aiming high to get the right target and market share, but some are very competitive in the market. For those companies, they want to differentiate their products from among others but some are not daring to change or adapt completely, partly contributable to insufficient market knowledge about how to make an effective brand effort. In view of the above background, this research paper is purported to understand brand-image enabled consumer behavior of the bottled water consumption and to suggest strategy for bottled water company. Specifically, this study investigates the role and nature of brand image to influence brand trust and brand loyalty. The role and nature of cognitive, affective, sensory images on bottled water brand would be statistically examined to predict the overall brand image, which in turn, influences brand trust and brand loyalty.

2. LITERATURE REVIEW

Brand image is the configuration of the whole field of a product or service, and more importantly, it can infer the customer's disposition and the attitudinal screen through which customers observe and perceive (Dichter, 1985). Brand image is the sum total of the impressions the consumer receives from many sources, (Herzog, 1963) in which cognitive aspect of brand plays significant role. The cognitive image reflects the mental thoughts of a brand, which consumers establish by considering product attributes, service, performance, and symbolic or psychological meanings of a brand (Bullmore, 1984). The personal meanings, which link to a memory of brand experiences lead consumers to create a distinct perception towards an overall brand image (Friedmann & Lessig, 1987). Based on these, the following hypothesis is proposed.

H1: Cognitive image can significantly explain the overall brand image.

Besides the role of cognitive inducement on brand image, Gobé (2001) and Lindstrom (2005) have explained that building deep emotional connections with consumers is important in capturing the overall image of the brand. The affective domain of brand image is also discussed in Carroll and Ahuvia (2006). Based on these, the following hypothesis is proposed.

H2: Affective image can significantly explain the overall brand image.

Moreover, Robert and Patrick (2009) advise that the visual elements of a product, such as a display, packages, logo design, and beautiful colors, music, olfactory stimulation, and variety in textures, can foster the brand experiences of customers. These visual roles are known in Gobé (2001) and Schmitt & Simonson (1997) as sensory experiences. Based on these, the following hypothesis is proposed.

H3: Sensory image can significantly explain the overall brand image.

Overall, overall brand image, which is induced by a set of brand association cognitively, affectively and sensorial, as logically argued above, should eventually result in brand trust and brand (Alhaddad, 2015), leading to the next hypotheses as follow:

H 4: Overall Brand image has the significant positive effect on brand trust. H 5: Overall brand image has the significant positive effect on brand loyalty.

Brand trust is a cognitive component of the behavior of consumers towards the brand (Assael, 1998), and has the ability to positively explain existence of brand loyalty (Alhaddad, 2015). Based on the above arguments, brand loyalty is considered as a part of the continual process of valuable and notable relationship which is produced by brand trust (Chaudhuri & Holbrook, 2001) as noticed in hypothesis H6.

H 6: Brand trust has a significant positive effect on brand loyalty.

The above six hypotheses raised are shown in the conceptual model, Figure 1, which illustrates the overall brand image as the mediating role in leveraging the three attributes of brand images to influence brand trust and brand loyalty. In the SEM analysis, an effort would be noted on this mediating role, and if not existed, the three brand images would have direct impacts on brand trust and loyalty.

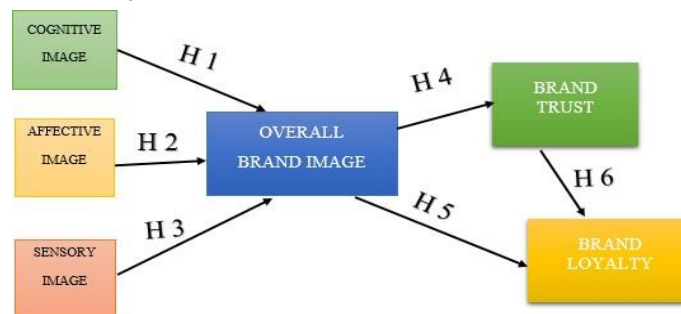


Figure 1: The conceptual model

3. RESEARCH METHOD

A four hundred and nineteen valid data set was collected through questionnaire-based survey from the consumers' familiarity the four brands identified in the questionnaire set in Tachileik. Questionnaire items of brand image were adapted from the experience of the author and the literature review (cf. Tan, 2018), including subjecting to pilot testing with the customers, the retailers and subject expert in research method and consumer behaviors (the thesis advisor). The responses are arranged on a five-Likert scale, with 1 = strongly disagree to 3 = neutral, to 5 = strongly agree. The construct measurements were tested for reliability and validity. Content validity of measures is established through fitting to the definition of the construct, and careful review of the literature and pilot tested with the retailers selling the bottled water and the thesis advisor. In a 2014 census survey, Tachileik has 51,553 population. Tachileik is the most populated city in SHAN state of Myanmar. It is the border city to Thailand and most of the suppliers of bottled water business are from Mae Sai, Chiang Rai, Thailand. There are currently more than 50 bottled water companies in Tachileik. Among them, four brands are selected as the subject candidates for this research, due to their popularity, and recognizable awareness. For data analysis, statistical methods such as multiple regressions and structural equation modelling (SEM) would be used primarily to testify the supportability of the hypotheses raised. Nevertheless, prior to these inferential studies, all the constructs would be ensured meeting the reliability and validity requirements.

4. DATA ANALYSIS

Each respondent responded on the four brand perceptions of all the measurement statements. Thus, for the 419 consumers surveyed, a total of 1676 (=4X419) valid samples were obtained. Table 1 provides the convergent and discriminant validity analysis of the constructs. The convergent validity is evidenced by the total variance explained (TVE) exceeding the 0.50 threshold (cf. Tan, 2018) and the reliability index also exceeding the 0.70 threshold (Fornell and Larker, 1981). The discriminant validity is evidenced by each of the cross-correlational coefficient strengths at below the square root of TVE



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Table 1: Convergent and divergent validity analysis

	V1	V2	V3	V4	V5	V6	V7	V8	V9	V10	V11	V12	V13	V14	TVE	KMO	Reliability Index
V1	0.97														0.94	0.5	0.937
V2	0.84	0.95													0.90	0.5	0.882
V3	0.90	0.87	0.93												0.86	0.5	0.841
V4	0.82	0.92	0.85	0.96											0.92	0.762	0.942
V5	0.84	0.73	0.89	0.75	0.97										0.95	0.5	0.941
V6	0.86	0.77	0.84	0.83	0.90	0.95									0.91	0.727	0.949
V7	0.92	0.87	0.90	0.92	0.85	0.94	0.98								0.96	0.835	0.957
V8	0.84	0.79	0.85	0.85	0.80	0.91	0.94	0.97							0.95	0.635	0.821
V9	0.77	0.77	0.84	0.84	0.81	0.90	0.90	0.96	0.94						0.89	0.5	0.873
V10	0.88	0.71	0.85	0.72	0.88	0.93	0.89	0.87	0.85	0.93					0.87	0.714	0.923
V11	0.86	0.84	0.90	0.86	0.91	0.92	0.92	0.89	0.90	0.89	0.92				0.85	0.5	0.803
V12	0.89	0.83	0.86	0.91	0.77	0.87	0.95	0.93	0.88	0.81	0.88	0.92			0.85	0.848	0.932
V13	0.95	0.89	0.92	0.89	0.88	0.92	0.96	0.91	0.88	0.88	0.91	0.91	0.93		0.86	0.854	0.96
V14	0.91	0.81	0.90	0.87	0.89	0.94	0.96	0.92	0.89	0.92	0.91	0.91	0.92	0.95	0.90	0.866	0.971

Note: V1=Easy Access, V2=Premium Plastic bottle, V3=Variety of Bottle sizes, V4=Water Quality, V5=CSR, V6=Customer Service, V7=Affective Image, V8=Taste & Odor, V9=Logo Design & Color, V10=Bottle Design, V11=Visual Appeal, V12=Overall Image, V13=Brand Trust, V14=Brand Loyalty

Table 2 presents the general data descriptions as well as the results of the cross-comparative analyses of the demographic and psychographic variables, by means of ANOVA and t-tests. The dark-color coded square-boxes highlight the areas of significant differences. The test result clearly shows that there are significant differences of the consumer perceptions over the four brands. The result shows that Mizzima brand and San Yay brand stand in better perceptual levels when compared to Htin Htin brand. The Swan Htet is below both Mizzima brand and San Yay from the perceptions of the consumers, but performing better than Htin Htin brand.

Table 2: General data, ANOVA and t-test analyses

Description	Percentage %	Affective Image	Taste & odor	Customer Service	Water Quality	Easy Access	Overall Brand Image	Brand Trust	Brand Loyalty
Constructs		3.32	3.77	3.24	3.57	3.68	3.83	3.5	3.47
		1.13	0.78	1.12	1.14	1.13	0.92	0.1	1.13
Gender									
Male	69%	3.32	3.77	3.24	3.57	3.68	3.82	3.5	3.47
Female	31%	3.32	3.77	3.23	3.58	3.68	3.84	3.5	3.46
Age									
<20 years old	2.40%	3.29	3.7	3.19	3.66	3.68	3.79	3.5	3.43
20-35 years old	37.90%	3.32	3.78	3.25	3.56	3.68	3.83	3.5	3.47
36-50 years old	47.70%	3.31	3.77	3.24	3.57	3.69	3.83	3.49	3.47
>50 years old	11.90%	3.32	3.75	3.22	3.62	3.68	3.81	3.5	3.47
Income									
Less than 3,000 – less than 10,000 Baht	4.80%	3.3	3.73	3.2	3.62	3.68	3.83	3.51	3.45
10,000 – less than 30,000 Baht	83.30%	3.32	3.78	3.24	3.56	3.68	3.83	3.49	3.46
30,000- less than 100,000 baht		3.32	3.78	3.25	3.56	3.69	3.83	3.5	3.48
100,000 Baht or above	11.90%	3.31	3.74	3.19	3.64	3.67	3.82	3.5	3.45
Frequency									
Not everyday	4.80%	3.29	3.74	3.16	3.66	3.66	3.84	3.52	3.42
Not many times in a day	23.90%	3.31	3.75	3.22	3.6	3.69	3.82	3.49	3.46
Many times in a day	71.40%	3.32	3.78	3.25	3.56	3.68	3.83	3.5	3.47
Preferred Brand									
MIZZIMA	40%	3.99	4.2	4.23	4.14	4.42	4.24	4.27	4.41
SWAN HTET	22.90%	3.37	3.67	2.96	3.35	4.12	3.91	3.61	3.43
SAN YAY	27%	4.14	4.33	3.89	4.68	4.21	4.62	4.03	4.1
HTIN HTIN	9.50%	1.77	2.87	1.87	2.12	1.98	2.54	2.07	1.93
Usage									
Retail shop for selling	4.80%	3.3	3.77	3.25	3.55	3.69	3.8	3.46	3.43
Individual consumption	80.90%	3.32	3.78	3.25	3.57	3.69	3.83	3.49	3.47
Business consumption	14.30%	3.31	3.74	3.2	3.63	3.67	3.81	3.5	3.46

Overall, cognitive, affective and sensory images play significant roles in explaining the variances of overall brand images; thus, supporting hypotheses H1 to H3 as also evidenced in Table 3. Nevertheless, as shown in the SEM in Figure 2, the overall brand image does not play significantly the role of mediation in between the different facets of brand images to brand trust and brand loyalty. In other words, the SEM shows that it is each of the cognitive, affective and sensory brand images that has more meaningful and direct significant impact on brand trust and brand loyalty. The



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SEM shows excellent fits, reflected by the Chi-square/df at 1.558, $p = 0.212$ (not significant), GFI = 1, AGFI = 0.99s and RMSEA (root mean square error of approximation) at 0.018 (less than 0.05).

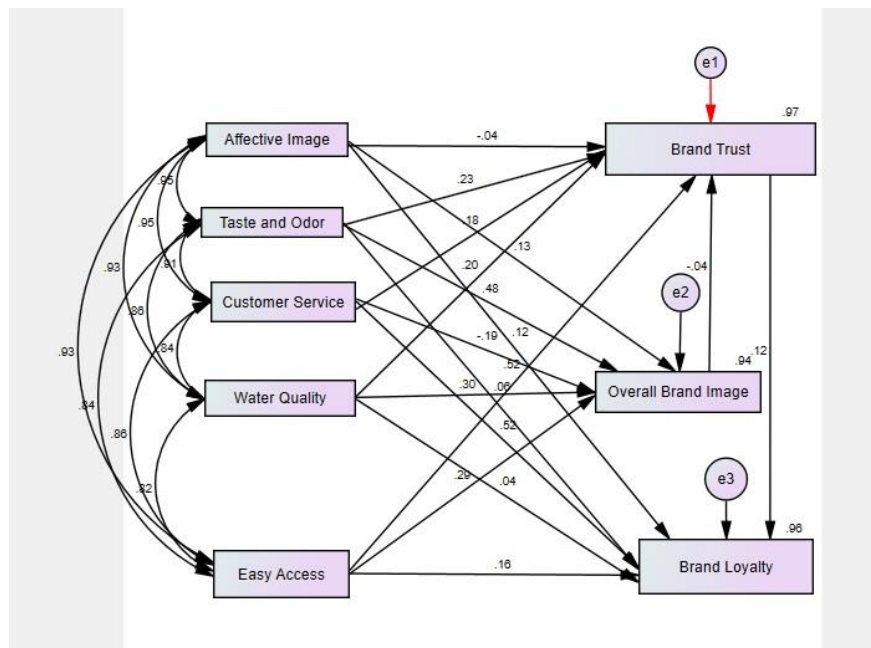


Figure 2: Validated structural equation model (SEM)

	Dependent Variable	Predictors	Beta	t-value	p-value	Hypothesis Testing Outcome
H1	Overall Brand Image	Customer Service	-0.187	-9.484	0.000	Supported
		Water Quality	0.305	16.61	0.000	Supported
		Easy Access	0.291	15.684	0.000	Supported
H2	Overall Brand Image	Affective Image	0.126	2.629	0.009	Supported
H3	Overall Brand Image	Taste and Odor	0.477	23.13	0.000	Supported
H4	Brand Trust	Easy Access	0.522	34.615	0.000	Supported
		Water Quality	0.2	13.327	0.000	Supported
		Customer Service	0.177	11.501	0.000	Supported
		Affective Image	-0.044	-1.203	0.229	Rejected
		Taste and Odor	0.229	12.732	0.000	Supported
		Overall brand image	-0.044	-2.384	0.017	Supported
H5	Brand Loyalty	Easy Access	0.148	7.047	0.000	Supported
		Water Quality	0.028	1.672	0.950	Rejected
		Customer Service	0.522	30.754	0.000	Supported
		Affective Image	0.117	3.013	0.003	Supported
		Taste and Odor	0.05	2.509	0.012	Supported
		Overall brand image	0.025	1.296	0.213	Rejected
H6	Brand Loyalty	Brand trust	0.124	4.782	0.000	Supported

Table 3. Hypothesis Validation



Conclusion

The SEM showed that overall brand image is not significantly important as originally conceived in the theoretical conceptual model, but the cognitive, affective, and sensory details are important. Cognitive aspects (easy access, water quality), and sensory aspects (taste & odor) are the most predicted indicators of overall brand image which lead to brand trust and brand loyalty. Customer service is categorized as the most important part of cognitive image of brand perception, complementing the roles of brand loyalty. In business term, caring for customers after purchasing product is playing important role in creating customer loyalty in bottled water business which means customers are satisfied and appreciating the sympathy of the company on customer. Easy accessibility, controlling the water quality, and maintaining the pure taste and avoiding the unusual taste are the most important factors for the bottled water company to recognize as a good brand. In other words, to be distributed widely in the city, it is important to gain the brand trust, which means everyone will believe the brand if they can see it in everywhere and mass customers are buying it. Taste & odor are also important and have been shown to impact significantly on brand trust and brand loyalty. Overall, to be successful in the bottled water brands, cognitive, affective and sensory aspects of brand image should be simultaneously targeted. In particular, to gain brand trust, easy access, water quality, customer service, and taste and odors should be prioritized as these brand images can explain 97 per cents of the variance of brand trust. For brand loyalty, the affective attribute of the brand image and brand trust should be facilitated.

While this study fills the missing gap of brand image in the study of bottled water consumptions in the markets, it nevertheless does not consider antecedent factors such as marketing mix initiatives of the marketers or other relevant consumer perceptions or attitudes stimulation factors. Thus, further research can incorporate more antecedent roles and mechanisms so that the model can be enable the bottled water companies to better suggest marketing or brand-related strategies. For instance, Tan (2017) and Tan and Patthracholakorn (2017) studied the stimulation factors as the antecedents to brand images, prior to the formation of positive consumer responses at the attitudinal, behavioral and conative levels.

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